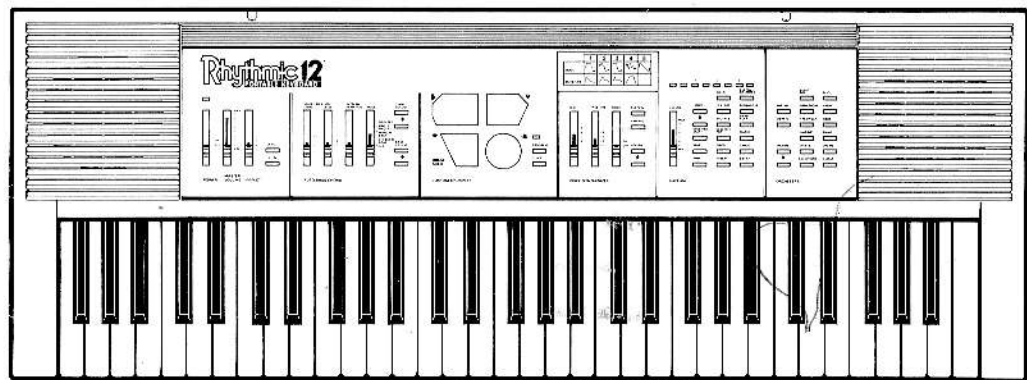


Rhythmic 12TM

PORTABLE KEYBOARD



USER'S MANUAL

VTech[®] VIDEO TECHNOLOGY

Notice

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Sub-part J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- reorient the receiving antenna
- relocate this product with respect to the receiver
- move this product away from the receiver

WARNING

Please be careful when using headphones. The sound level can harm your ears if set too loud. Make sure volume control is not set to maximum before putting on headphones.

A few Words, before the music begins

Congratulations!

As a proud owner of the Video Tech **Rhythmic 12** Keyboard, you will find that this unit has a lot to offer. It has 61, full size keys and a wide variety of features.

This manual has been specially prepared to not only help you learn about this keyboard, but also teach you the basics about reading and playing keyboard music. Be sure to take the time to become familiar with your **Rhythmic 12** keyboard before starting to play for easier operation.

So if you're ready let's begin . . .

Index

Technical informations

The controls	1-2
Input/Output/Adaptor data	3
Battery data	4

Custom Sounds

Master/Independent volume controls	5
Instruments/Voices	6
Rhythms	7
Special Effects	8
Sound Shaper™ Synthesizer	8
Fill-in drums	9
Custom Drummer	9-10

Chord Systems

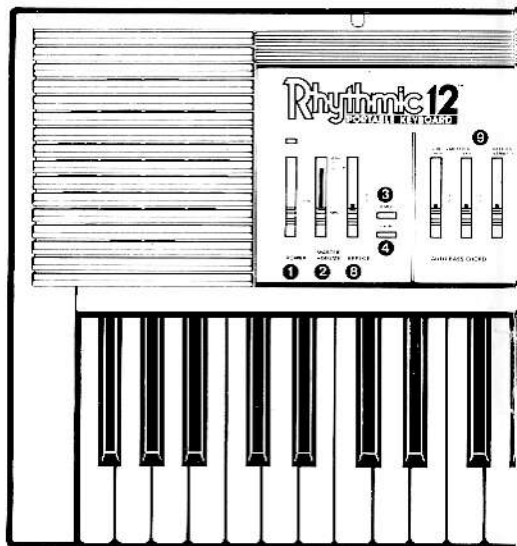
The Auto Bass chord	10
Single Finger chords	11
Fingered chord	12
Memory	12
Manual Bass	13
Keyboard Split	13

Starting to play

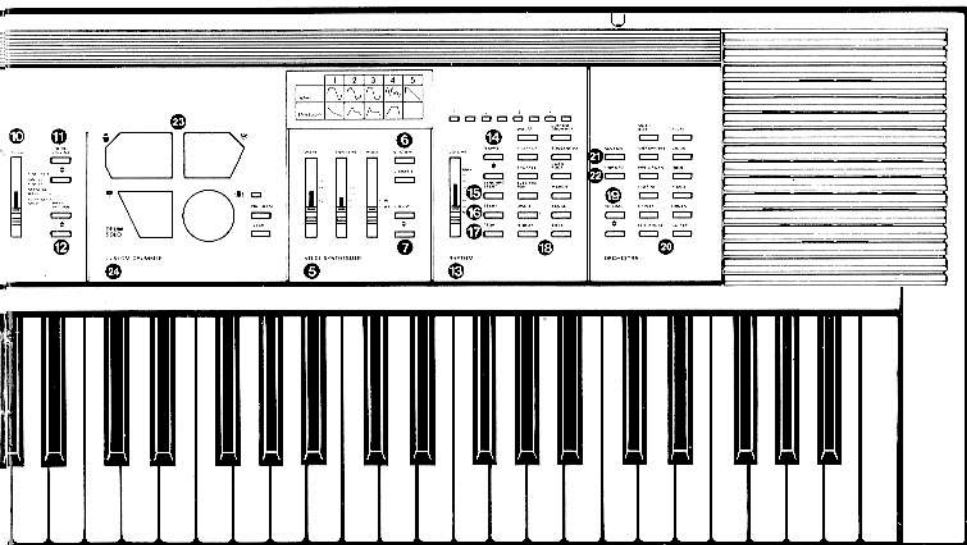
Playing	14
Chords table	15-16
Easy music reading	17-18
Care and Keeping of your Rhythmic 12	19
Troubleshooting	20
Specifications	21-22

The controls

Your **Rhythmic 12** has 61 keys, 45 buttons, 44 switch positions and 4 drumpads. Other sections of this manual will deal with them in more details, but for now, here is a brief overview:



1. **Power switch** - Turns unit on and off.
2. **Master volume** - Controls volume of entire unit.
3. **Demo song** - Plays a pre-recorded music track.
4. **Fill-in** - Inserts appropriate percussion to rhythms.
5. **Voice Synthesizer** - Lets you create Synthesized voices.
6. **Sustain/Vibrato effects (for voice synthesizer section)** - Lets you to sustain and vibrate synthesized voices.
7. **Voice Synthesizer volume** - Independent volume control.
8. **Effect control** - Lets you choose from 3 levels of stereo effects.
9. **Voice/Pattern variation** - 3 choices in each of the chord, bass and pattern areas.
10. **Chord mode** - Lets you choose 4 chord variations.
11. **Chord volume** - Varies Chord volume independently.
12. **Bass volume** - Controls Bass volume alone.
13. **Rhythm volume** - Adjusts Rhythm volume or slower.



14. **Tempo** - Plays accompaniment faster or slower.
15. **Rhythm synchro** - Rhythm follows your playing.
16. **Rhythm start** - Begins playing rhythm section.
17. **Rhythm stop** - Halts rhythm play immediately.
18. **Pre-set rhythms** - select 1 of 12 rhythms.
19. **Orchestra volume** - Varies instrument volume only.
20. **Instrument** - Choose 1 of 12 instrument.
21. **Sustain** - Makes note continue after key is released.
22. **Vibrato** - Varies note rapidly.
23. **Finger Drum™ pads** - Choose four different drum sounds by tapping the pads with your fingers.
 "Bass drum", "Hi-conga", "Snare drum" or "Hi-hat."
24. **Custom Drummer™** - Lets you play a custom drum pattern by selecting the beats for each drum.

Input/Output/Adaptor data

The Adaptor socket

This is where you insert the output plug of a standard 12V 800mA +⌀- adaptor. Plug the other end of the adaptor into a wall socket. Don't leave the adaptor plugged in for long periods when you are not using your **Rhythmic 12** as it can overheat and cause problems.

The Headphone socket

This socket allows you to attach a standard set of stereo headphones to your keyboard. When the headphones are in place, the **Rhythmic 12** speakers are automatically turned off.

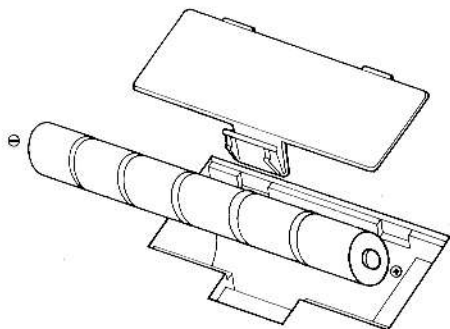
The Auxiliary-Output socket

Use this socket to hook your **Rhythmic 12** up to a big stereo amplifier. A standard 0.5mm stereo plug will do the trick. Once it is connected, the **Rhythmic 12** speakers will be turned off.

Battery data

You can take music with you anywhere. Your keyboard will make beautiful music using only 6 alkaline "D" size (UM1) batteries. To insert the batteries or to change batteries, follow these simple steps:

1. Turn the power switch to **OFF**.
2. Turn the keyboard over and remove the battery cover.
3. Remove old batteries if there are any inside, and insert the 6 new "D" size alkaline batteries according to the diagram indicated inside the battery compartment.
4. Replace the cover, turn the unit **ON**.



■ Tips on battery use:

This unit uses 6 "D" cell batteries. We recommend the use of alkaline batteries only.

Do not mix old batteries with new as they do not rejuvenate the old. In fact, the presence of old batteries will drain the new ones almost immediately. Use all new batteries at each change.

If you are not going to use your **Rhythmic 12** unit for a long period of time, do not leave any batteries in place. Take out all batteries and store separately to avoid the possibility of damage or leakage.

Master/Independent volume controls

The **Rhythmic 12** gives you the versatility of a 4-track audio-mixing board. You have 4 independent volume controls plus one overall volume control.

So you can adjust the Voice Synthesizer volume, Auto-Bass Chords volume, the Instrument volume and the Rhythm volume independently.

The 4 independent volumes are pre-set to the maximum. So if you want to adjust, you may have to take all 4 down, and work from there. Each has 16 digital sound levels for you to work with.

Instruments/Voices

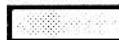
You have 12 separate instruments to choose from:

Music Box	Chimes	Oboe
Vibraphone	Saxophone	Piano
Pipe Organ	Flute	Organ
Clarinet	Violin	Guitar

Sustain:

As the name implied, this function sustains the note after you have taken your fingers from the keyboard. It lets you produce the emotional lingering quality, but is better for some instruments than for others.

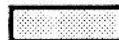
SUSTAIN



Vibrato:

This function delivers a slight vibration to your music to give it that sweet impact which only the most professional musicians can achieve. This is another area where you have to decide with which instruments it goes best.

VIBRATO



Rhythms

You can choose from 11 pre-set rhythms or can create your own rhythm with the "Custom Drummer". Here are your choices:

Waltz (3/4)	Disco (4/4)	Hard Rock (4/4)
Foxtrot (4/4)	16-beat (4/4)	March (4/4)
Shuffle (4/4)	Custom Drummer	Tango (4/4)
Electric Pop (4/4)	Bossanova (4/4)	8-beat (4/4)

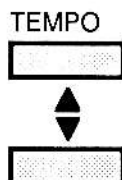
NOTE: The keyboard is set to Electric Pop at starting.

There are two ways in which you can use with the built-in rhythms. The first is to get the rhythm started and follow it with your own playing on the keyboard. This is accomplished by pressing the **START** button. As soon as you do, the selected rhythm will begin immediately. To turn the rhythm OFF, press the **START** button again.

The second way is to have the rhythm follow your playing. To do this, press the **SYNCHRO** button. The selected rhythm will be put on stand-by until you press the accompaniment keys on the left hand side of the keyboard. The selected rhythm will begin from the first beat.

The Tempo

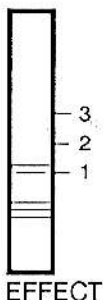
You can adjust the selected rhythm to make it faster by pressing the ▲ switch. To slow down the rhythm, press the ▼ switch.



Special Effects

Effect control:

This effect delivers a wide sort of yodelling effect on each note. There are 3 depths of stereo sound to choose from.

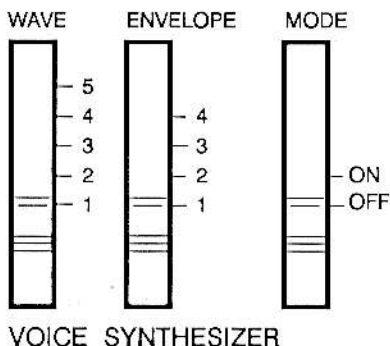


Sound Shaper™ Synthesizer

New voices of unique tonal qualities can be created by selecting one of five waveforms. To activate, just switch to **ON** and select waveform. But it cannot combine synthesized voice with any one on the 12 pre-set instruments voices.

Envelope: The attack and decay of the sound can be varied by choosing one of four tone envelopes. The resulting change in resonance (volume pattern) can be heard from the point at which the tone is sounded until it diminishes.

If you want the instrument sounds, set the switch to **OFF**.



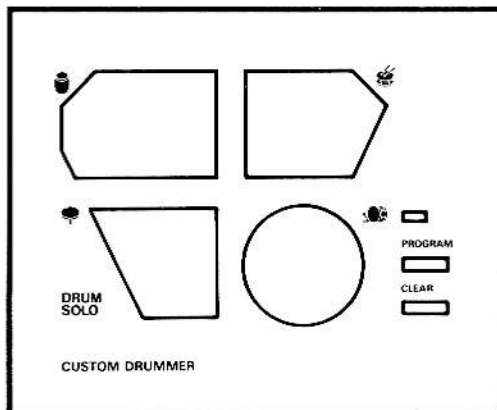
Fill-in drums

This inserts a percussion fill-in (grace) pattern in the preset rhythm. You don't have to worry about making them work with the other background music you've selected. They adjust automatically.

FILL IN



Custom Drummer



You can create your own drum background by adjusting the beats of the 4 percussion sources . . . a base drum, hi-conga, snare drum and a hi-hat cymbal. Here's what to do:

- 1) Press the **PROGRAM** button for programming.
- 2) The LED lights on the **RHYTHM** section will on and begin to run. (These running lights represent the beat of the rhythm 4/4 or 3/4. The rhythm is preset to 4/4 at start, and you can change to 3/4 by pressing the **WALTZ** button.)
- 3) Program the percussion sounds by tapping the 4 drum pads in each beat you want. (The programmed percussion sounds will reply instantly.)
- 4) After programming, press the **STOP** button to install the programmed rhythm into the Custom Drummer.

- 5) To have the desired rhythm, simply press the **Custom Drummer** button and the **START** button to begin the rhythm.
- 6) You can use the **CLEAR** button to clear all the previous programmed percussion sound of the rhythm pattern. (It is operational only when it is in the **PROGRAM** mode.)

For spontaneous additions, you can tap any of these Finger Drums percussion pads with your fingers at any time.

The Auto Bass chord

The left-most 19 keys on your keyboard are assigned for **Auto Bass Chord** selection.

Single Finger chords

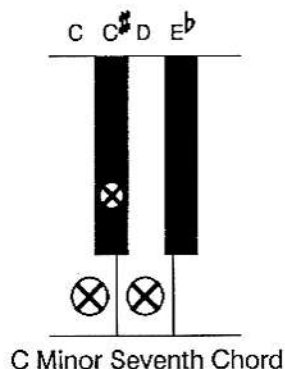
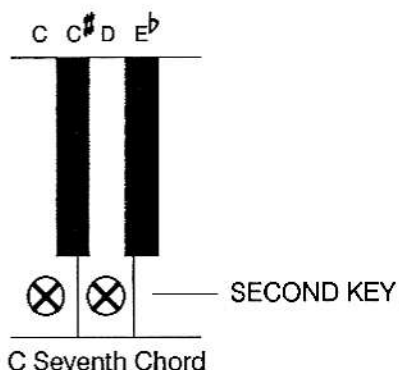
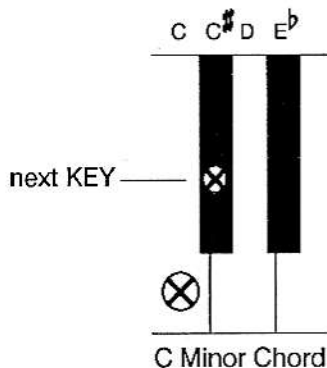
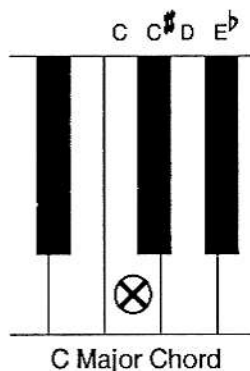
This feature lets you play chords with one single finger. It saves you having to learn and practice all those difficult finger positions and lets you play professional sounding pieces right from the start.

For one-finger accompaniment

1. Choose the **RHYTHM** you want, then press the **SYNCHRO START** or **START** button.
2. Slide the switch to the **SINGLE FINGER Chord** mode.
3. Press one of the 19 keys in the **Auto Bass Chord** section. You will hear the corresponding chord with bass and rhythm accompaniment.

You can play a total of 48 chords (4 types x 12) in **SINGLE FINGER CHORD** mode.

1. To get a "C MAJOR CHORD", simply push the C KEY.
2. To get "C MINOR CHORD" depress the C KEY together with the next KEY on the right.
3. To get "C SEVENTH CHORD" depress the C KEY together with the second KEY on the right.
4. To get "C MINOR SEVENTH CHORD", simply press the next KEY and second KEY on the right together.



Fingered chord

For automatic accompaniment based on THREE-NOTE or FOUR-NOTE CHORDS.

1. Slide the switch to the **FINGERED CHORD** mode.
2. When a combination of **CORRECT CHORD KEYS** is pressed, the resulting chord can be played together with the automatic accompaniment consisting of the bass and the selected rhythm.
3. In **FINGERED CHORD** mode, the following chords can be played:
 - (A) MAJOR
 - (B) MINOR
 - (C) SIXTH
 - (D) SEVENTH
 - (E) MAJOR SEVENTH
 - (F) MINOR SEVENTH
 - (G) DIMINISHED
 - (H) AUGMENTED(See chords table pages 15 and 16)

Memory:

Both **SINGLE FINGER CHORD** and **FINGERED CHORD** have memory chord function.

The latest chord input will stay in memory until another is entered, at which time the old chord will be erased.

Manual Bass

Taking on the full meaning of the words, it is totally manual. It cannot follow a preset rhythm and run. So you can create a new bass pattern all by yourself. The bass voice cannot simultaneously produce multiple note.

Keyboard Split

Split your keyboard into TWO SEPARATE KEYBOARDS.

The 19 keys on the Auto Bass Chord section will be changed into a second keyboard. The voices are controlled by the Chord Voice Variation and the Chord volume.

















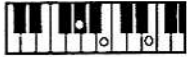



















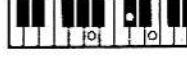









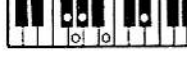
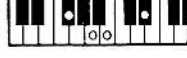
The rest of the keys are remain unchanged. Voices of these keys are still controlled by the Voice Synthesizer or the Orchestra section.

When the keyboard is splitted, keys 1-19 are equivalent to keys 25 to 43 at normal setting. The chords have no memory and is entirely manual and spontaneous.

Playing

1. Switch ON, Red LED's will light up.
2. Select instrument.
3. Select Sustain, Vibrato and Effect level.
4. Select preset Rhythm (or create your own with Custom Drummer Program).
5. Select Rhythm start (to lead) or Rhythm Synchro (to follow).
6. Choose beat with TEMPO controls.
7. Choose Fingered Chords for normal chord playing.
8. Choose Single-Finger Chords for easy chord playing.
9. Choose Manual Bass for spontaneous manual bass playing.
10. Choose Keyboard Split to create two separate keyboards.
11. Press Fill-in for auto drums.
12. Tap at any time with fingers on the Finger Drum pads to have percussion voices.
13. Adjust Master volume and all separate volume controls for prefect mix.
14. Begin to play.

Chords table

	Major	Minor	6th	7th
C				
C#				
D				
E				
E ^b				
F				
F#				
G				
A ^b				
A				
B ^b				
B				






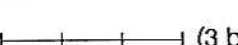


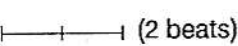


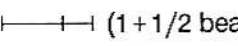


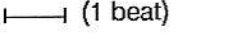


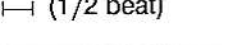


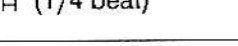

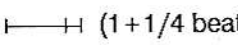
maj7th	min7th	dim.	aug.

Easy music reading

Remember the terms which are frequently used in music.

Note length (duration)

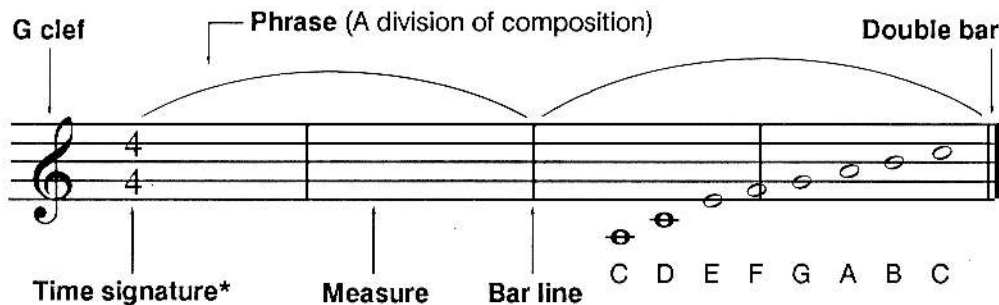
For notes with a tie, the note is held for the total number of beats of the tied notes.

Notes	Names	Rests	Names	Length (Quarter note receives one beat)
	Whole note		Whole rest	 (4 beats)
	Dotted half note		Dotted half rest	 (3 beats)
	Half note		Half rest	 (2 beats)
	Dotted quarter note		Dotted quarter rest	 (1 + 1/2 beats)
	Quarter note		Quarter rest	 (1 beat)
	Eighth note		Eighth rest	 (1/2 beat)
	Sixteenth note		Sixteenth rest	 (1/4 beat)
	Sixteenth note tied to a quarter note.			 (1 + 1/4 beat)

Introduction to the keyboard

■ Measure and notation

■ Music Staff*



* The two numbers at the beginning of a music are known as the time signature. The top number indicates the number of beats in each measure. The bottom number tells you the type of note that receives on beat.

* Music Stacks have five lines and four spaces. Notes will appear on either lines or spaces. They are named as shown above. At the beginning of each staff will be a CLEF sign. The treble clef usually plays the "treble" or higher pitched sounds.

Care and Keeping of your Rhythmic 12


1. Avoid placing the instrument in excessively humid areas.
2. Do not subject the unit to physical shock, and avoid placing anything heavy on it.
3. The **Rhythmic 12** should not be placed in direct sunlight for a long time.
4. Do not place the instrument near any heating appliance, or leave it inside a car in direct sunlight for any length of time.
5. Use a dry or damp cloth for cleaning.
6. Never leave batteries in for long periods of time when **Rhythmic 12** is not being used.

Troubleshooting

Problems	Probable Cause	Possible solution
Melody voice does not play	1) Power switch is OFF. 2) Master Volume is at MIN. 3) Batteries are run down. 4) Digital Volume is at MIN. 5) Adaptor is not plugged in. 6) Unit is in DEMO mode.	1) Turn power ON. 2) Adjust Master Volume. 3) Replace batteries 4) Adjust Digital Volume. 5) Connect adaptor. 6) Turn off DEMO.
Cannot change WAVE and ENVELOPE in Voice Synthesizer.	Voice Synthesizer is OFF.	Switch Voice Synthesizer ON.
Volume, Sustain and Vibrato have no effect in Synthesizer.	Voice Synthesizer is OFF.	Turn Voice Synthesizer ON.
Rhythm does not play.	1) Program button is pressed. 2) START button is not pressed. 3) SYNCHRO START is pressed but no chord has been entered. 4) Rhythm Volume is at MIN. 5) Custom Drummer is selected but no beats have been programmed.	1) Turn PROGRAM function OFF. 2) Press START. 3) Enter any chord. 4) Adjust Rhythm Volume. 5) Select other Rhythm.
Drum pads do not play.	DEMO is ON.	Turn DEMO mode OFF.
Auto Bass Chord will not play.	1) Chord mode is OFF. 2) Split Keyboard mode is ON. 3) Manual Bass mode is ON. 4) Chord or Bass volume is at MIN.	1) Select Fingered or Single-Finger Chord mode. 2) Select Fingered or Single-Finger Chord mode. 3) Select Fingered or Single-Fingered Chord mode. 4) Adjust digital volume controls.
No sound in Split section, when in Split Keyboard mode.	Chord volume is set to MIN.	Adjust Chord digital volume.
Manual Bass does not play.	Orchestra volume is set to MIN.	Adjust digital Orchestra volume.
Selected instrument does not play.	Adjust digital Orchestra volume.	Orchestra volume is set to MIN.
Fill-in does not play rhythm.	Rhythm has not been STARTED.	START or SYNCHRO-START.

Specifications

- | | |
|-----------------------------|---|
| 1. Keyboard | : 61 full-sized keys (5 octaves) |
| 2. Orchestra voices | : 12 instruments
Saxophone, Organ, Flute, Chimes,
Guitar, Violin, Clarinet, music Box,
Oboe, Pipe Organ, Vibraphone,
Piano |
| 3. Built-in rhythm | : Waltz (3/4), Tango (4/4),
Bossanova (4/4), 8-beat (4/4),
Foxtrot (4/4), Hard Rock (4/4),
16 Beat (4/4), Shuffle (4/4),
March (4/4), Disco (4/4),
Electric Pop (4/4),
Custom Drummer™
(user-programmed) |
| 4. Sound effects | : Sustain, Vibrato, Effect 1, 2 and 3 |
| 5. Voice Synthesizer | : Envelope selector (1-4),
Wave selector (1-5) ON, OFF |
| 6. Control volumes | : Master volume, Rhythm volume,
Synthesizer volume,
Orchestra volume, Chord volume,
Bass volume |
| 7. Customer Drummer™ | : Program button, clear button,
4 drumpads, LED indicator,
Custom Drummer selection button in
Rhythm section |
| 8. Panel percussion | : Touch pads to simulate: Bass drum,
Snare drum, High-conga, High-hat
cymbal |

- | | |
|------------------------------------|--|
| 9. Tempo | : Controls to increase ▲ or decrease ▼ music speed |
| 10. Auto Bass Chord section | : Mode select: Manual Bass, Single Finger Chord, fingered Chord, Keyboard Split, Off |
| 11. 9 variations | : 3 Bass Chord patterns
3 Chord voice variations
3 Bass voice variations |
| 12. Other controls | : Demo, Fill-in (Drum) |
| 13. Power switch | : On/Off switch (LED indication) |
| 14. Auxiliary sockets | : Stereo headphone socket,
Auxiliary out socket,
AC adaptor socket |
| 15. Amplifiers | : 1.5W x 2 |
| 16. Speakers | : 4 Ohm x 5W x 2 |
| 17. Rated voltage | : DC 9V (1.5V UM-1, "D" SIZE x 6) |
| 18. Adaptor | : 12V (800mA)  AC adaptor |
| 19. Weight | : 6.5kg. |
| 20. Dimensions | : Length: 918mm
Width: 335mm
Height: 99mm |

